served, but the most internal layers of the retina are the seat of an œdema, characterized either by the presence of œdematous masses between the optic fibres, or by hypertrophic degenerations of the ganglion cells; finally, by the increase of the protoplasm of the internal granules. These alterations differ essentially from those described by the author in a previous memoir, as following optico-ciliary section.

DEVELOPMENT OF THE CRANIAL NERVES.—M. Mathias Duval reported to the Société de Biologie, April 2 (abstr. in *Le Progrès Médical*), that he had recently had an opportunity to examine the brain of a lamb fœtus at term, which was subject to an arrest of development. It was an *otocephale;* the head, reduced to the middle and inner ears, appeared to have been severed by a ligature above the basilar process. In a section of the encephalic stump, at the level of the floor of the fourth ventricle, he recognized the nucleus of origin, the eminentia teres, and the exit of the facial nerve, as well as the origin of the external motor oculi. The nucleus of origin of the trigeminus, situated in the same plane, and the section of which, in the form of a horseshoe, is commonly easy to recognize, was absolutely invisible. What is the explanation of this phenomenon? M. Duval finds it in the study of the development of the spinal roots.

We are aware, in fact, that in the embryo, before the closure of the spinal canal, we observe rising from its anterior portion two prolongations, the origins of the anterior roots. Later, when the canal is closed, we see leaving its posterior region two lateral prolongations composed of nervoso-epithelial colonies. These diverticula become the spinal ganglia, but they first become pediculated, then they separate themselves completely from the medullary canal, and it is only still later that it sends toward the cord on one side and toward the periphery on the other the prolongations that form the sensory nerve roots.

Thus, as regards the trigeminus, the medullary portion should start from the ganglia of Gasser, thus explaining why no trace of it was found in the medulla.

b.—PATHOLOGY OF THE NERVOUS SYSTEM AND MIND, AND PATHOLOGICAL ANATOMY.

DISORDERS OF THE BRAIN IN DYSPEPSIA.—At the session of the

Soc. de Biologie, May 21 (rep. in *Le Progrès Médical*, No. 22), M. Leven made a communication on the brain troubles in dyspepsia. He had a hundred observations that demonstrated to him the existence in dyspepsia of cerebral symptoms not, so far, noticed, for example, cerebral commotion. He had seen patients struck suddenly in the street with veritable apoplectic attacks, lasting ten minutes or a quarter of an hour; they were supposed to be epileptics, but were in reality only dyspeptics, in whom the cerebral accidents subsided completely as soon as the digestive functions were reëstablished. In the dyspeptics the intelligence remains intact; there is never any mental alienation; certain cerebral faculties may be altered or obscured, so to speak, but the Ego remains entire, and the patient controls himself in his disorder. The disorder of the higher mental faculties, the enfeeblement of the will, of the activity, of the memory, of the power of speech, are easily observed. Some patients are incapable of determination; they need an effort to perform even ordinarily instinctive actions, such as to recover an object they have accidentally dropped; in them the memory is defective and speech difficult, especially after eating. A general sadness overcomes them, every thing appears dark; but, unlike the subjects of hysteria, they generally present a cutaneous hyperæsthesia, but never anæsthesia.

In the discussion of M. Leven's communication M. Laborde took some exceptions to its conclusions. Certainly he did not deny the influence of disorders of the stomach upon the brain, and no one cares to discredit the symptoms of anæmia of dyspeptic origin; but it may be that M. Leven had made a slightly forced interpretation of his results.

There are many persons in whom the digestive disorder is dependent upon nervous disease, and it is straining a point somewhat to seek to find in the stomach the point of departure of all the phenomena. He had had under his care a dyspeptic woman, who had simultaneously delirious ideas of fear of being bitten by a mad dog, which soon increased to the dread of contact with any one who had touched a dog; finally it extended to fear of contamination by aliments, and at last the patient became almost entirely insane.

M. Leven said, in reply, that that case was simply one of insanity, while he spoke only of hypochondriacs, who, however they are spoken of by alienists and others who have so far studied them so ill, are not demented; they possess their intelligence and ought not to be ranked with lunatics.

M. Laborde asked, then, what proof could be given that certain hypochondriacs were not insane. That a well-directed dietary course might improve them is possible, but that is no reason for saying that the stomach is the point of departure for all the symptoms. It is necessary to observe a patient a long time to see a mental affection, partial in its beginning, degenerate into dementia.

HYDROPHOBIA AND SEPTICÆMIA.—At the session of the Acad. de Médicine, May 24th (reported in *Le Progrès Médical*) M. Colin (of Alfort) read a paper entitled : Some Experiments on Hydrophobia, Septicæmia, and Charbon. After a preamble noticing the experiments of MM. Raynaud, Lannelongue, and Pasteur, who had claimed to have found a new disease produced by inoculating rabbits with the saliva taken from the mouth of a child dead with rabies, and with whose views he did not agree, he stated his own experiments. He collected on a lancet a certain quantity of virus from the mouth of a rabid living dog, and successively inoculated three rabbits. The first received one puncture with the lancet, the second received two, and the third three. The rabbits exhibited no noteworthy symptoms till the eighteenth day, when they began to drag the foot in which the puncture had been made, and six hours later they fell over on one side. The same evening the rabbit that received a single inoculation succumbed, the second was in agony, and the third had no abnormal symptoms.

All three finally died ; the first eighteen days after the inoculation, the second nineteen, and the third twenty-two days after the punctures were made. The symptoms of the disease were vague, and consisted, in the later stages, in an extreme depression and a stiffness of limbs together with tetanic convulsions. The respiratory movements were much diminished and attained only one third the normal frequency. In short the salient phenomena of rabies were altogether lacking. The autopsy revealed the following lesions : on the right flank, where the inoculations were made, absence of œdema, or of pus or plastic deposits ; in the lymphatics, which were much tumefied and smooth, the presence of voluminous white globules, and the complete absence of vibriones and bacilli ; and in the skin, nothing indicating any lesion whatever.

These lesions show without question that we have to do here with septicæmia, or purulent infection, and M. Colin declares that these animals have succumbed to hydrophobia.